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## United States Patent [19]

DiSanto et al.

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[54] ELECTROPHORETIC DISPLAY PANEL  
WITH INTERNAL MESH BACKGROUND  
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[58] Field of Search ..... 340/787, 788; 359/296,  
359/54; 358/59

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## [57] ABSTRACT

A triode type electrophoretic display (10) includes a pair of substantially identical glass faceplates (12, 14) sealed to a pair of interstitial spacers (16a, 16b) to form a fluid-tight envelope for containing an electrophoretic fluid. An anodized black screen or mesh element (28) is sandwiched between the spacers and is opaque when viewed by the naked eye, thereby providing enhanced background coloration and contrast with pigment particles suspended in the fluid. The mesh (28) occupies an intermediate position relative to the extreme limits of travel of the particles as controlled by grid (18) and cathode (20) deposited upon one faceplate (14) on one side and the anode (26) deposited upon the other faceplate (12) on the other side. The screen (28) is porous, permits particles to pass through it, and is biased electrically to assist in moving the particles during formation of a displayed image.

44 Claims, 4 Drawing Sheets

